The following is a complete listing of the claims. This listing replaces all earlier versions and listings of the claims.

Claim 1 (currently amended): A method of clamping the output values of filtered image data comprising a mapping of discrete sample values, said method comprising the steps of:

for each discrete sample value of [[said]] the mapping:

determining a maximum sample value and a minimum sample value of a plurality of input discrete samples values used to calculate [[said]] the discrete sample value; and

clamping the output value of [[said]] the discrete sample value to the domain range of [[said]] the plurality of input discrete sample values utilising [[said]] the maximum sample value and [[said]] the minimum sample value, wherein said output value is dependent depending on a plurality of attributes of said plurality of input discrete sample values the number of colors represented by the plurality of input discrete sample values.

Claim 2 (canceled)

Claim 3 (currently amended): [[The]] A method according to claim [[2]] 1, wherein [[said]] the number is compared to a threshold value.

Claim 4 (currently amended): [[The]] A method according to claim 3, wherein [[said]] the threshold value is predetermined.

Claim 5 (currently amended): [[The]] A method according to claim 3, wherein [[said]] the threshold value is dependent on [[said]] the plurality of input discrete sample values.

Claim 6 (currently amended): [[The]] A method according to claim 3, wherein [[said]] the threshold value is [[8]] equal to eight.

Claim 7 (currently amended): [[The]] A method according to claim 1, wherein said plurality of attributes includes the clamped output value is dependent on a magnitude of [[said]] the discrete sample value.

Claim 8 (currently amended): [[The]] A method according to claim 7, wherein [[said]] the magnitude is compared to [[said]] the maximum sample value and [[said]] the minimum sample value.

Claim 9 (currently amended): A method of interpolating image data comprising a plurality of discrete sample values, said method comprising the steps of:

accessing at least one portion of [[said]] the plurality of discrete sample values of [[said]] the image data;

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calculating kernel values for each discrete sample value of [[said]] the portion using one of a plurality of kernels;

convolving [[said]] the kernel values with [[said]] the portion of discrete sample values to produce an output value; and

clamping [[said]] the output value to the ~~domain~~ range of [[said]] the portion of discrete sample values, ~~wherein said output value is dependent~~ for use in interpolating the image data, depending on ~~a plurality of attributes of said portion of discrete sample values~~ the number of colors represented by the portion of discrete sample values.

Claim 10 (canceled)

Claim 11 (currently amended): [[The]] A method according to claim [[10]] 9, wherein [[said]] the number is compared to a threshold value.

Claim 12 (currently amended): [[The]] A method according to claim 11, wherein [[said]] the threshold value is predetermined.

Claim 13 (currently amended): [[The]] A method according to claim 11, wherein [[said]] the threshold value is dependent on [[said]] the plurality of input discrete sample values.

Claim 14 (currently amended): [[The]] A method according to claim 11, wherein [[said]] the threshold value is [[8]] equal to eight.

Claim 15 (currently amended): [[The]] A method according to claim 9, wherein ~~said plurality of attributes includes~~ the clamped output value is dependent on a magnitude of [[said]] the discrete sample value.

Claim 16 (currently amended): [[The]] A method according to claim 15, wherein [[said]] the magnitude is compared to a maximum sample value and a minimum sample value of [[said]] the portion of discrete sample values.

Claim 17 (currently amended): [[The]] A method according to claim 16, wherein [[said]] the output value is set to [[said]] the maximum sample value if:

[[said]] the number is less than [[said]] a threshold value; and

~~said output value~~ the magnitude is greater than [[said]] the maximum sample value of [[said]] the portion.

Claim 18 (currently amended): [[The]] A method according to claim 8, wherein [[said]] the output value is set to [[said]] the minimum sample value if:

[[said]] the number is less than [[said]] a threshold value; and

~~said output value~~ the magnitude is less than [[said]] the minimum sample value of [[said]] the portion.

Claim 19 (currently amended): [[The]] A method according to claim 16, wherein [[said]] the output value of the image data is produced for a plurality of color channels and the maximum sample value and [[said]] minimum sample [[value]] values are calculated over all colour each of the color channels of said image data.

Claim 20 (currently amended): An apparatus for clamping the output values of filtered image data comprising a mapping of discrete sample values, said apparatus comprising:

means for determining, for each discrete sample value of [[said]] the mapping, a maximum sample value and a minimum sample value of a plurality of input discrete samples values used to calculate [[said]] the discrete sample value; and

means for clamping the output value of [[said]] the discrete sample value to the domain range of [[said]] the plurality of input discrete sample values utilising [[said]] the maximum sample value and [[said]] the minimum sample value, wherein said output value is dependent depending on a plurality of attributes of said plurality of input discrete sample values the number of colors represented by the plurality of input discrete sample values.

Claim 21 (canceled)

Claim 22 (currently amended): [[The]] An apparatus according to claim [[21]] 20, wherein [[said]] the number is compared to a threshold value.

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Claim 23 (currently amended): [[The]] An apparatus according to claim 22, wherein [[said]] the threshold value is predetermined.

Claim 24 (currently amended): [[The]] An apparatus according to claim 22, wherein [[said]] the threshold value is dependent on [[said]] the plurality of input discrete sample values.

Claim 25 (currently amended): [[The]] An apparatus according to claim 22, wherein [[said]] the threshold value is [[8]] equal to eight.

Claim 26 (currently amended): [[The]] An apparatus according to claim 20, wherein said plurality of attributes includes the clamped output value is dependent on a magnitude of [[said]] the discrete sample value.

Claim 27 (currently amended): [[The]] An apparatus according to claim 26, wherein [[said]] the magnitude is compared to [[said]] the maximum sample value and [[said]] the minimum sample value.

Claim 28 (currently amended): An apparatus for interpolating image data comprising a plurality of discrete sample values, said apparatus comprising:

access means for accessing at least one portion of [[said]] the plurality of discrete sample values of [[said]] the image data;

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calculation means for calculating kernel values for each discrete sample

value of [[said]] the portion using one of a plurality of kernels;

convolution means for convolving [[said]] the kernel values with

[[said]] the portion of discrete sample values to produce an output value; and

clamp means for clamping [[said]] the output value to the ~~domain~~ range

of [[said]] the portion of discrete sample values for use in interpolating the image data, ~~wherein~~

~~said output value is dependent~~ depending on ~~a plurality of attributes of said portion of discrete~~

~~sample values~~ the total number of colors represented by the portion of discrete sample values.

Claim 29 (canceled)

Claim 30 (currently amended): [[The]] An apparatus according to claim [[29]]

28, wherein [[said]] the number is compared to a threshold value.

Claim 31 (currently amended): [[The]] An apparatus according to claim 30,

wherein [[said]] the threshold value is predetermined.

Claim 32 (currently amended): [[The]] An apparatus according to claim 30,

wherein [[said]] the threshold value is dependent on [[said]] the plurality of input discrete sample

values.

Claim 33 (currently amended): [[The]] An apparatus according to claim 30, wherein [[said]] the threshold value is [[8]] equal to eight.

Claim 34 (currently amended): [[The]] An apparatus according to claim 28, wherein said plurality of attributes includes the clamped output value is dependent on a magnitude of [[said]] the discrete sample value.

Claim 35 (currently amended): [[The]] An apparatus according to claim 34, wherein [[said]] the magnitude is compared to a maximum sample value and a minimum sample value of [[said]] the portion of discrete sample values.

Claim 36 (currently amended): [[The]] An apparatus according to claim 35, wherein [[said]] the output value is set to [[said]] the maximum sample value if:

[[said]] the number is less than [[said]] a threshold value; and

said output value the magnitude is greater than [[said]] the maximum sample value of [[said]] the portion.

Claim 37 (currently amended): [[The]] An apparatus according to claim 27, wherein [[said]] the output value is set to [[said]] the minimum sample value if:

[[said]] the number is less than [[said]] a threshold value; and

said output value the magnitude is less than [[said]] the minimum sample value of [[said]] the portion.

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Claim 38 (currently amended): [[The]] An apparatus according to claim 35, wherein [[said]] the output value of the image data is produced for a plurality of color channels and the maximum sample value and [[said]] minimum sample value values are calculated over all [[colour]] color channels of [[said]] the image data.

Claim 39 (currently amended): A computer readable medium, having a program recorded thereon, where the program is configured to make a computer execute a procedure to clamp the output values of filtered image data comprising a mapping of discrete sample values, said program comprising:

code for determining for each discrete sample value of [[said]] the mapping, a maximum sample value and a minimum sample value of a plurality of input discrete samples values used to calculate [[said]] the discrete sample value; and

code for clamping the output value of [[said]] the discrete sample value to the domain range of [[said]] the plurality of input discrete sample values utilising [[said]] the maximum sample value and [[said]] the minimum sample value, wherein said output value is dependent on a plurality of attributes of said plurality of input discrete sample values depending on the number of colors represented by the plurality of input discrete sample values.

Claim 40 (canceled)

Claim 41 (currently amended): [[The]] A computer readable medium according to claim [[40]] 39, wherein [[said]] the number is compared to a threshold value.

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Claim 42 (currently amended): [[The]] A computer readable medium according to claim 41, wherein [[said]] the threshold value is predetermined.

Claim 43 (currently amended): [[The]] A computer readable medium according to claim 41, wherein [[said]] the threshold value is dependent on [[said]] the plurality of input discrete sample values.

Claim 44 (currently amended): [[The]] A computer readable medium according to claim 41, wherein [[said]] the threshold value is [[8]] equal to eight.

Claim 45 (currently amended): [[The]] A computer readable medium according to claim 39, wherein said plurality of attributes includes the clamped output value is dependent on a magnitude of [[said]] the discrete sample value.

Claim 46 (currently amended): [[The]] A computer readable medium according to claim 45, wherein [[said]] the magnitude is compared to [[said]] the maximum sample value and [[said]] the minimum sample value.

Claim 47 (currently amended): A computer readable medium, having a program recorded thereon, where the program is configured to make a computer execute a procedure to interpolate image data comprising a plurality of discrete sample values, said program comprising:

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code for accessing at least one portion of [[said]] the plurality of discrete sample values of [[said]] the image data;

code for calculating kernel values for each discrete sample value of [[said]] the portion using one of a plurality of kernels;

code for convolving [[said]] the kernel values with [[said]] the portion of discrete sample values to produce an output value; and

code for clamping [[said]] the output value to the ~~domain~~ range of [[said]] the portion of discrete sample values for use in interpolating the image data, ~~wherein said output value is dependent on a plurality of attributes of said portion of discrete sample values~~ depending on the number of colors represented by the portion of discrete sample values.

Claim 48 (canceled)

Claim 49 (currently amended): [[The]] A computer readable medium according to claim [[48]] 47, wherein [[said]] the number is compared to a threshold value.

Claim 50 (currently amended): [[The]] A computer readable medium according to claim 49, wherein [[said]] the threshold value is predetermined.

Claim 51 (currently amended): [[The]] A computer readable medium according to claim 49, wherein [[said]] the threshold value is dependent on [[said]] the plurality of input discrete sample values.

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Claim 52 (currently amended): [[The]] A computer readable medium according to claim 49, wherein [[said]] the threshold value is [[8]] equal to eight.

Claim 53 (currently amended): [[The]] A computer readable medium according to claim 47, wherein said plurality of attributes includes the clamped output value is dependent on a magnitude of [[said]] the discrete sample value.

Claim 54 (currently amended): [[The]] A computer readable medium according to claim 53, wherein [[said]] the magnitude is compared to a maximum sample value and a minimum sample value of [[said]] the portion of discrete sample values.

Claim 55 (currently amended): [[The]] A computer readable medium according to claim 54, wherein [[said]] the output value is set to [[said]] the maximum sample value if:

[[said]] the number is less than [[said]] a threshold value; and

said output value the magnitude is greater than [[said]] the maximum sample value of [[said]] the portion.

Claim 56 (currently amended): [[The]] A computer readable medium according to claim 46, wherein [[said]] the output value is set to [[said]] the minimum sample value if:

[[said]] the number is less than [[said]] a threshold value; and

said output value the magnitude is less than [[said]] the minimum sample value of [[said]] the portion.

Claim 57 (currently amended): [[The]] A computer readable medium according to claim 54, wherein [[said]] the output value of the image data is produced for a plurality of color channels and the maximum sample value and [[said]] minimum sample value values are calculated over all colour channels of [[said]] the image data.